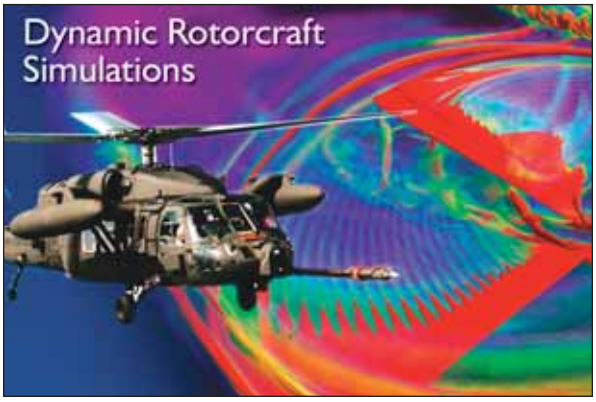
NAVAL OCEANOGRAPHIC OFFICE

https://www.navo.navy.mil

Major Shared Resource Center for High Performance Computing

The NAVOCEANO Major Shared Resource Center (MSRC) for High Performance Computing (HPC) serves the nation as one of the premier supercomputing centers in the world today. The MSRC provides an immensely capable scientific computing environment that serves thousands of scientists and engineers throughout the nation engaged in research and development (R&D), testing and evaluation activities for the Department of Defense (DOD). The MSRC provides critical support for worldwide Navy and DOD operations as one of the world's most capable HPC environments for high-resolution modeling and simulation of global-scale oceanography and meteorology.

The NAVOCEANO MSRC has been consistently recognized as one of the world's most powerful supercomputing centers, simultaneously serving diverse, large-scale R&D and operational HPC communities for the Navy, the DOD and the nation.

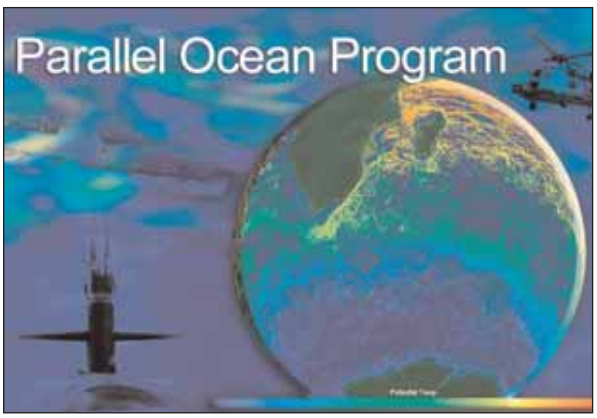


Cutting-Edge Infrastructure

Computational resources within the MSRC include a balanced suite of some of the world's largest HPC systems providing an aggregate peak computational capability that exceeds 30 trillion operations per second. This terascale computing capability undergoes continuous modernization and is complemented by cutting-edge capabilities in the areas of data archival and storage management, data mining/interpretation/analysis and advanced networking.

The MSRC network infrastructure provides secure, fault-tolerant connectivity to the nation at multi-gigabit speeds. The MSRC is connected to all major government, industrial and academic networks worldwide via its external Defense Research and Engineering (DREN) wide-area connectivity.

The MSRC also incorporates cutting-edge data storage and archival capabilities to store and manage data archives that are many thousands of terabytes (TB) in size. NAVOCEANO manages thousands of TB of permanent data, with a growth rate approaching 1,000 TB of new data per year. This petascale data management and dissemination capability forms the basis for one of the nation's most advanced digital data archive capabilities, with unparalleled ability to support long-term/high-volume data archival and retrieval.



Advanced Outreach and Support

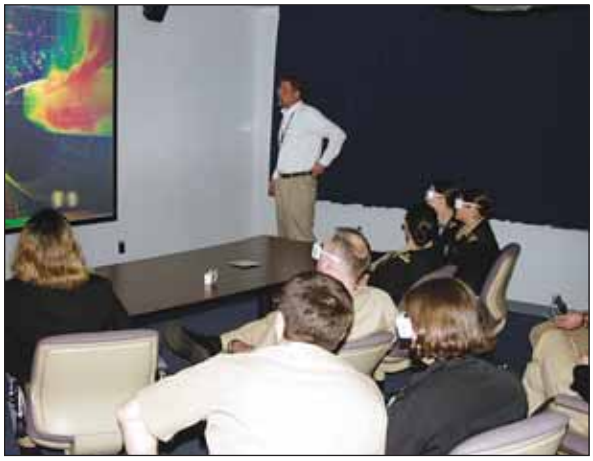
An essential element of the MSRC effort at NAVOCEANO is an extensive outreach program to support and

empower DOD scientists and engineers. This outreach program provides the user services, training, collaboration and computational environment improvements that permit these users to apply MSRC resources in the most efficient and successful manner possible. A unique part of the NAVOCEANO MSRC outreach program includes the Programming Environment and Training component, which engages leading academic, industrial and government HPC initiatives and expertise to best leverage this expertise to DOD advantage.

Another key element of NAVOCEANO MSRC user support is the MSRC Visual Analysis and Data Interpretation Center (VADIC). The VADIC merges advanced data visualization and analysis tools, techniques and an expert staff with one of the world's premier computing and data management environments to provide scientists and engineers a unique ability to analyze, interact and distill information and knowledge from the vast amounts of computed and observed data that are managed within the MSRC.

A primary emphasis of the VADIC is the development of analysis applications and tools that facilitate remote interaction and analysis of large-scale datasets within the MSRC over high-speed networks. These innovative applications and tools enhance user productivity by eliminating the time and expense of moving and storing data at non-MSRC sites. The VADIC also includes a full-featured, professionally staffed multimedia production capability.

For more information on NAVOCEANO HPC visit the MSRC Web site at http://www.navo.hpc.mil.



For more information, please contact NAVOCEANO Public Affairs at 228.688.5649 or visit https://www.navo.navy.mil.

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